

Apparatus and method for dynamic internet protocol telephony call routing and call rerouting

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Abstract of EP1035719

A method and a system for handling calls includes utilizing a delay calculation module 12 to calculate 42 and 46 a transmission delay between first 18 and second 36 terminals over a voice-over-data-network 20, such as the Internet. A local call processor 10 determines 44 and 48 if the transmission delay exceeds a predetermined threshold. If the threshold is exceeded, voice transmission quality over the Internet is not sufficient to support high quality transmissions for the call and a call router places 60 the call over an alternate network, such as a Public Switch Telephone Network (PSTN) 22. In a preferred embodiment, the transmission delay calculation is a two-tiered process in which a preliminary round trip delay is first calculated to screen for large transmission delays which do not include a delay component introduced by a remote call processor. If the preliminary round trip delay exceeds a round trip delay threshold, the call is routed over the PSTN. If the preliminary round trip delay falls within a predetermined range below the threshold, the delay calculation module calculates an end-to-end echo which includes a delay introduced by the remote call processor. If the end-to-end echo is below an end-to-end echo delay, the call is routed 50 over the Internet. Otherwise, the call is routed over the PSTN. After a call is routed over the Internet, the round trip delay and the end-to-end echo are monitored 52 and the call is transferred 54 if either the round trip delay or the end-to-end echo exceeds its respective threshold.

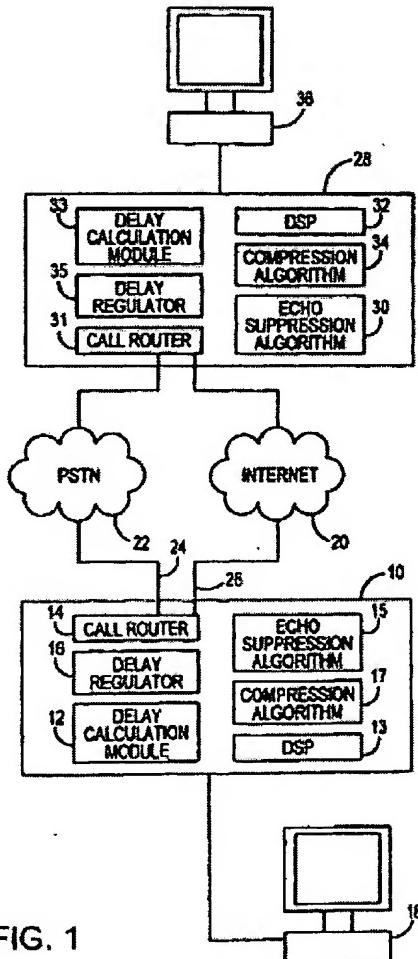


FIG. 1